WHAT IS CLAIMED IS:

1. A four massaging head type massaging mechanism comprising:

a first rotary shaft supported in a right-and-left direction;

a pair of right and left swing arms relatively rotatably mounted on the first rotary shaft;

a plurality of massaging heads each secured to an upper end portion and a lower end portion of each of the swing arms;

a bracing member engaged with each of the swing arms so as to restrain the swing arm from rotating in connection with rotation of the first rotary shaft;

a first operating mechanism for swinging the swing arms in opposite directions in the right-and-left direction to each other so that a right and left pair of massaging heads respectively secured to the upper end portions are moved toward each other while a pair of right and left the massaging heads respectively secured to the lower end portions of the swing arms are moved away from each other in the right-and-left direction, and vice versa, by means of the rotation of the first rotary shaft; and

a second operating mechanism linked to the bracing member for reciprocatingly rotating the swing arm about an axis of the first rotary shaft through the bracing member.

2. A four massaging head type massaging mechanism comprising:

a first rotary shaft supported in a right-and-left direction;

a pair of right and left swing arms relatively rotatably mounted on the first rotary shaft;

a plurality of massaging heads each secured to an upper end portion and a lower end portion of each of the swing arms;

a bracing member engaged with each of the swing arms so as to restrain the swing arm from rotating in connection with rotation of the first rotary shaft;

a first operating mechanism for swinging the swing arms in opposite directions in the right-and-left direction to each other so that a right and left pair of massaging heads respectively secured to the upper end portions are moved toward each other while a pair of right and left the massaging heads respectively secured to the lower end portions of the swing arms are moved away from each other in the right-and-left direction, and vice versa, by means of the rotation of the first rotary shaft;

a second operating mechanism linked to the bracing member for reciprocatingly rotating the swing arm about an axis of the first rotary shaft through the bracing member; and

a guide support portion for supporting the second operating mechanism so as to be movable following the rotation

of the swing arm about the first rotary shaft.

3. A four massaging head type massaging mechanism comprising:

a first rotary shaft supported in a right-and-left direction;

a pair of right and left swing arms relatively rotatably mounted on the first rotary shaft;

a plurality of massaging heads each secured to an upper end portion and a lower end portion of each of the swing arms;

a first operating mechanism for swinging the swing arms in opposite directions in the right-and-left direction to each other so that a right and left pair of massaging heads respectively secured to the upper end portions are moved toward each other while a pair of right and left the massaging heads respectively secured to the lower end portions of the swing arms are moved away from each other in the right-and-left direction, and vice versa, by means of the rotation of the first rotary shaft; and

a bracing member engaged with each of the swing arms so as to restrain the swing arm from rotating in connection with rotation of the first rotary shaft, the bracing member being reciprocatingly movable in connection with a rotation of the swing arm about the first rotary shaft.

4. A four massaging head type massaging mechanism as set forth in claim 1, wherein the second operating mechanism comprises a second rotary shaft disposed in parallel to the first rotary shaft, a crank member provided on the second rotary shaft and having a shaft portion eccentric with respect to an axis of the second rotary shaft, and an interlocking member having one end portion joined to the shaft portion of the crank member and the other end portion joined to the bracing member, the interlocking member being reciprocated in connection with a rotation of the second rotary shaft.

5. A four massaging head type massaging mechanism as set forth in claim 2, wherein the second operating mechanism comprises a second rotary shaft disposed in parallel to the first rotary shaft, a crank member provided on the second rotary shaft and having a shaft portion eccentric with respect to an axis of the second rotary shaft, and an interlocking member having one end portion joined to the shaft portion of the crank member and the other end portion joined to the bracing member, the interlocking member being reciprocated in connection with a rotation of the second rotary shaft.

6. A four massaging head type massaging mechanism as set forth in claim 4 or 5, wherein the first operating mechanism has a first driving member for rotary driving the first rotary

shaft, while the second operating mechanism has a second driving member for rotary driving the second rotary shaft, the second driving member being disposed on a rear side of the first rotary shaft, while the second rotary shaft and the first driving member being disposed on upper and lower sides of the first rotary shaft, respectively, in a sandwiching manner.

7. A four massaging head type massaging mechanism as set forth in claim 4 or 5, wherein the first operating mechanism has a first driving member for rotary driving the first rotary shaft, while the second operating mechanism has a second driving member for rotary driving the second rotary shaft, the first driving member and the second driving member being disposed between the right and left swing arms in the right-and-left direction.

8. A four massaging head type massaging mechanism as set forth in claim 4 or 5, wherein the bracing member, the crank member, and the interlocking member are each provided in pair on right and left sides corresponding the pair of right and left swing arms, and the second rotary shaft is provided with a half-rotation clutch mechanism for interlocking one of the right and left crank members with the other crank member so that the right and left crank members are mutually relatively rotatable within a substantially half-turn range.

9. A four massaging head type massaging mechanism as set forth in claim 8, wherein the second operating mechanism is controlled to rotate the second rotary shaft by an amount of at least a half turn so that projecting amounts of each pair of right and left massaging heads to a user's body are unified just before or substantially simultaneously with an actuation of the first operation mechanism to start massage operation.

10. A four massaging head type massaging mechanism as set forth in any one of claims 1 to 3, wherein the first operating mechanism comprises the first rotary shaft, a first driving member for rotary driving the first rotary shaft, and a pair of right and left cam members fixed to the first rotary shaft and having cam faces inclined in the opposite directions with respect to the rotary shaft, the cam faces being relatively rotatably engaged with the swing arms, respectively.

11. A four massaging head type massaging mechanism as set forth in claim 1 or 2, further comprising a second guide support portion for movably supporting the bracing member.

12. A four massaging head type massaging mechanism as set forth in claim 4 or 5, further comprising a second guide support portion for movably supporting the bracing member, the second

guide support portion having a joint link for rotatably joining the interlocking member with the bracing member, a slider provided on the joint link and a guide rail for slidably supporting the slider.

13. A chair massaging apparatus comprising:

a seat portion;

a backrest portion extending upward from an end portion of the seat portion; and

a four massaging head type massaging mechanism having a first rotary shaft supported in a right-and-left direction, a pair of right and left swing arms relatively rotatably mounted on the first rotary shaft, a plurality of massaging heads each secured to an upper end portion and a lower end portion of each of the swing arms, a bracing member engaged with each of the swing arms so as to restrain the swing arm from rotating in connection with rotation of the first rotary shaft, a first operating mechanism for swinging the swing arms in opposite directions in the right-and-left direction to each other so that a right and left pair of massaging heads respectively secured to the upper end portions are moved toward each other while a pair of right and left the massaging heads respectively secured to the lower end portions of the swing arms are moved away from each other in the right-and-left direction, and vice versa, by means of the rotation of the first rotary shaft, and

a second operating mechanism linked to the bracing member for reciprocatingly rotating the swing arm about an axis of the first rotary shaft through the bracing member, the massaging mechanism being housed in the backrest portion with the massaging heads oriented toward a front side of the backrest portion.

14. A leaner massaging apparatus comprising:

an independent one-piece casing having a longitudinal dimension substantially corresponding to a back area of a user's body, a rear surface to be leaned against a wall face W, and a front surface defining an opening; and

a four massaging head type massaging mechanism having a first rotary shaft supported in a right-and-left direction, a pair of right and left swing arms relatively rotatably mounted on the first rotary shaft, a plurality of massaging heads each secured to an upper end portion and a lower end portion of each of the swing arms, a bracing member engaged with each of the swing arms so as to restrain the swing arm from rotating in connection with rotation of the first rotary shaft, a first operating mechanism for swinging the swing arms in opposite directions in the right-and-left direction to each other so that a right and left pair of massaging heads respectively secured to the upper end portions are moved toward each other while a pair of right and left the massaging heads respectively

secured to the lower end portions of the swing arms are moved away from each other in the right-and-left direction, and vice versa, by means of the rotation of the first rotary shaft, and a second operating mechanism linked to the bracing member for reciprocatingly rotating the swing arm about an axis of the first rotary shaft through the bracing member, the massaging mechanism being housed in the casing with the massaging heads oriented toward the opening defined in the front surface of the casing.

15. A stationary massaging apparatus comprising:

a stationary casing defining an opening oriented upward; and

a four massaging head type massaging mechanism having a first rotary shaft supported in a right-and-left direction, a pair of right and left swing arms relatively rotatably mounted on the first rotary shaft, a plurality of massaging heads each secured to an upper end portion and a lower end portion of each of the swing arms, a bracing member engaged with each of the swing arms so as to restrain the swing arm from rotating in connection with rotation of the first rotary shaft, a first operating mechanism for swinging the swing arms in opposite directions in the right-and-left direction to each other so that a right and left pair of massaging heads respectively secured to the upper end portions are moved toward each other

while a pair of right and left the massaging heads respectively secured to the lower end portions of the swing arms are moved away from each other in the right-and-left direction, and vice versa, by means of the rotation of the first rotary shaft, and a second operating mechanism linked to the bracing member for reciprocatingly rotating the swing arm about an axis of the first rotary shaft through the bracing member, the massaging mechanism being housed in the casing with the massaging heads oriented toward the opening defined in the casing.

16. A hand-carriable massaging apparatus comprising:

a hand-carriable casing defining an opening in a front surface thereof and having a pair of grip portions provided on right and left sides thereof; and

a four massaging head type massaging mechanism having a first rotary shaft supported in a right-and-left direction, a pair of right and left swing arms relatively rotatably mounted on the first rotary shaft, a plurality of massaging heads each secured to an upper end portion and a lower end portion of each of the swing arms, a bracing member engaged with each of the swing arms so as to restrain the swing arm from rotating in connection with rotation of the first rotary shaft, a first operating mechanism for swinging the swing arms in opposite directions in the right-and-left direction to each other so that a right and left pair of massaging heads respectively

secured to the upper end portions are moved toward each other while a pair of right and left the massaging heads respectively secured to the lower end portions of the swing arms are moved away from each other in the right-and-left direction, and vice versa, by means of the rotation of the first rotary shaft, and a second operating mechanism linked to the bracing member for reciprocatingly rotating the swing arm about an axis of the first rotary shaft through the bracing member, the massaging mechanism being housed in the casing with the massaging heads oriented toward the opening defined in the front surface of the casing.